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ABSTRACT

Two samples, the first consisting of 13 and 16-year-olds and adults, the second consisting of children from kindergarten, second and sixth grades, are interviewed to measure the cognitive processes used to evaluate the credibility of television content. Additional goals include measuring the relationship between the use of these cognitive processes and the degree of credibility ascribed to television content or the degree of attitude change, taking into account sex, age, and ethnic background. Six cognitive processes are found which belong either to information sources outside television or to information about the industry itself. It is found that conceivability is the most frequently used source of information outside of television, and information about the television industry itself the most frequently used among television-related information sources. (WBC)

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Cognitive Process for Evaluating The Credibility of Television Content

September 5, 1976

by

Michael Forte

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COGNITIVE PROCESSES FOR EVALUATING

THE CREDIBILITY OF TELEVISION CONTENT

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Paper presented at the annual meeting
of the American Psychological Association

Washington, D.C.

September 5, 1976

We also conducted a set of analyses to examine the cognitive processes people use to evaluate the credibility of television content. By a cognitive process we mean the types of information or sources of information to which people refer to help them evaluate television content. I will use the terms "cognitive process" and "information source" interchangeably here, but it should be clear that in either case I am referring to the conscious comparison of television content to some source of information.

Our goal in examining these cognitive processes was two-part. First, we sought to measure the use of each kind of process, with attention to differences in use by age, ethnic group, and sex. The results I present will focus on these three factors. The second part of our goal was to determine if the use of any of the cognitive processes is related to the degree of credibility ascribed to television content or to attitude change. A later talk by Aimee Leifer will focus on this aspect of our research.

Our results were obtained from the two samples of people described earlier (13- and 16-year-old adolescents and adults; kindergarten, second- and sixth-grade children). Since the structure of the interviews we used with the adolescents and adults was somewhat different from that of the interviews used with the kindergarten, second- and sixth-grade children the results and interpretations will differ to some extent. I will make note of such differences, where the analyses for the two samples are not comparable. The first set of results I present will pertain to the adolescents and adults we interviewed. The second set of results will pertain to the children.

But first, a bit of background information to establish a context in which to view the results for the adolescents and adults. These interviews were coded for the use of abstract statements and statements using specific examples -- statements which would generally be called concrete statements. The raw numbers of abstract and specific example statements were converted to percentages of the total number of statements coded for each interview. This method of standardization was used so that the more talkative interviewees could be compared to those who said less, or gave less usable information.

We found a significant difference by age in the percent use of abstract statements ($F=3.15$; $df=2,50$; $p=.05$). The pattern was an increase in the use of abstract statements with an increase in age, from an average of 61% for 13-year-old adolescents to 71% for adults, with the 16-year-olds falling in the middle of this range (65%). There was, of course, also a significant difference by age for the use of specific examples ($F=4.924$; $df=2,50$; $p=.01$; with 13 yr. olds = 36%; 16 yr. olds = 36%; adults = 30%).

A difference among the ethnic groups was significant for the use of specific examples ($F=3.934$; $df=2,50$; $p=.025$). Whites made the greatest use of specific examples, averaging 44%, with blacks next at 33%, and Puerto Ricans least with 24%. The corresponding test on the use of abstract statements by race was <u>not</u> significant ($F=2.468$; $df=2,50$; $p=.093$).

Overall, abstract statements were used much more often than specific examples, and accounted for 66% of all statements.

With this background in mind, we can turn to the results for the six cognitive processes themselves. They can be conveniently divided into two general groups. One group relates to information sources outside of television and includes (1) information from personal experience, (2) ideas about what is possible or within the realm of conceivable experience, and (3) information from authorities, such as parents, school, newspapers, and other media. The second group is related to information about television itself, and includes (1) knowledge about television programs, (2) knowledge about television personalities, and (3) knowledge about the television industry as a business. Again, the raw numbers of references to each type of information were converted to percentages of the total numbers of statements coded. The figures I report may seem somewhat low to you. This is because only about 41% of the statements coded referred to cognitive processes. The other 59% referred to the cues attended to when evaluating the credibility of television content, and have been discussed by Sherryl Graves.

The only significant correlation among the six processes was between information from authorities and ideas about what is conceivable. This would be somewhat expected, since ideas about what is within the realm of conceivability are built upon information from others as well as personal experience.

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Insert Figure 1 about here

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The rank order in use, from most to least used, for all subjects for the six processes was:

(1)	Ideas about what is conceivable	(16%)
(2)	Personal experience	(9.5%)
(3)	Industry knowledge of television	(6.6%)
(4)	Information from authorities	(5.3%)
(5)	Knowledge about programs	(3.0%)
and (6)	Knowledge about television personalities	(0.4%)

The same ranking was also found for the use of the processes for 16-year-olds and for adults. Virtually the same ordering was found for the 13-year-olds, with the one exception that information from authorities was used more than knowledge about the television industry, thus interchanging ranks 3 and 4.

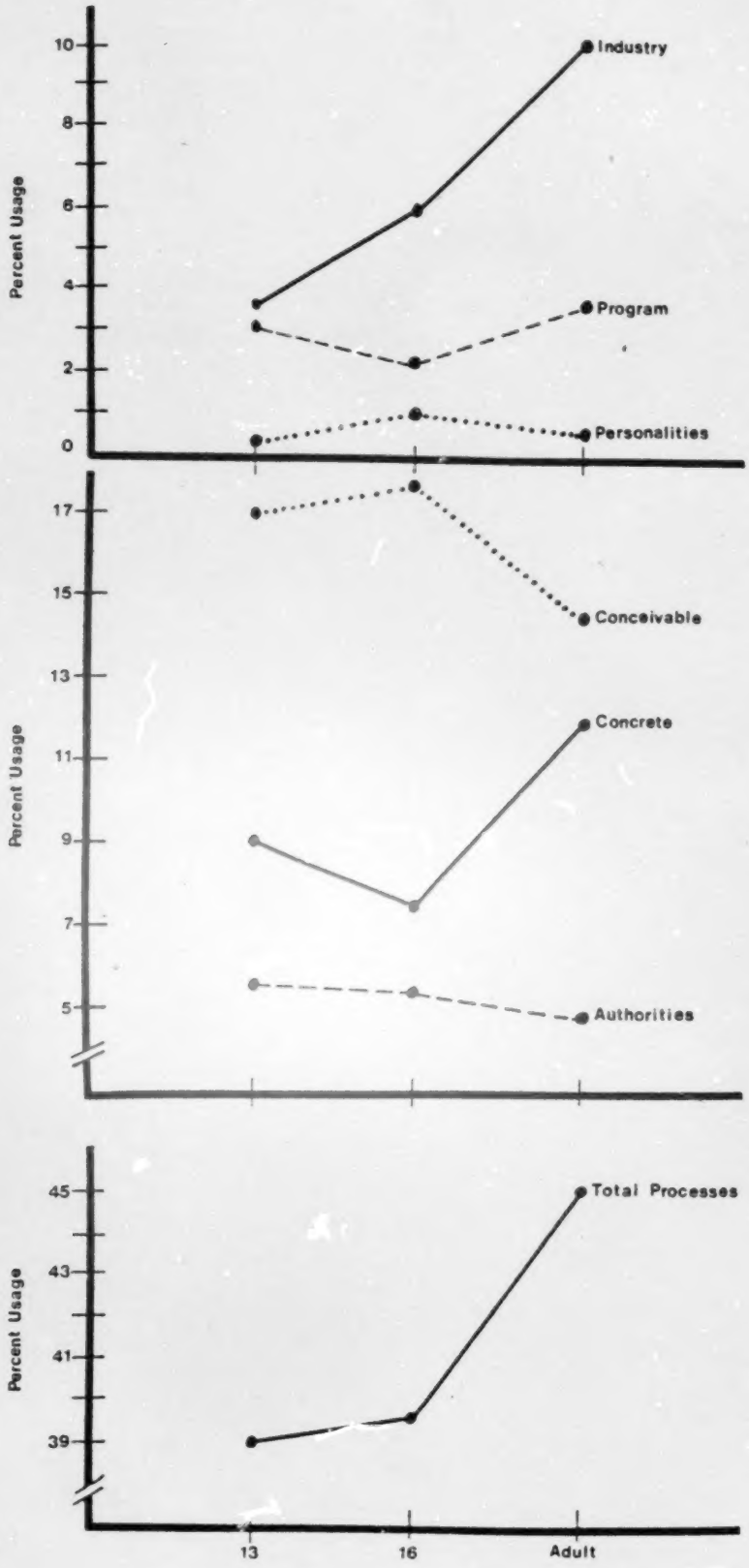
To test for the effects of age, ethnic group, and sex, analyses of variance were performed on the transformed percent use of the processes. Transformations were used to equalize cell variances. No effects of sex were found, so all significant effects I report are from 3-way analyses by age, ethnicity, and average ascribed credibility on the transformed scores.

No significant differences were found in the use of all processes totaled. There was a slight increase in use with age (13 yr. olds = 39%; 16 yr. olds = 39%; adults = 45%), and negligible differences by ethnic group (white = 43%; black = 45%; Puerto Rican = 35%) and by sex (male = 39%; female = 43%).

For those processes related to information outside of television, no significant differences were found in the use of personal experience as an information source. There was a slight increase in the use of personal experience with age (13 yr. olds = 9%; 16 yr. olds = 7%; adults = 12%), and blacks and Puerto Ricans used this type of information slightly more than whites (whites = 7.4%; blacks = 10.10%; Puerto Ricans = 11.3%), but none of these differences were statistically significant. Personal experience was the second most frequently used source of information, averaging about 9% overall.

Conceivability was the most frequently used source of information. It was mentioned in 16% of the interviewee statements. There was a slight decrease in use with age (13 yr. olds = 17%; 16 yr. olds = 18%; adults = 14%), but the change was not significant. A significant difference by ethnic group was found. Whites used this information most (22%), blacks nearly the same (18%), and Puerto Ricans least (8%) ($F=13.858$; $df=2,43$; $p=.001$).

Processes Used



The last process in this group of information sources external to television is information from authorities. This was the fourth most often used process, with an average of 5% use. The average use for the three age groups, three ethnic groups, and two sexes were within a few tenths of 1% of the overall average, and none of the factors was significant.

The second major group of processes relate to the use of information about television.

Program knowledge was the fifth most used information, averaging 3%. The age factor was not significant. The means show a slight drop in the use of program knowledge for 16-year-olds (2.2%). Thirteen-year-olds and adults made about equal use of program knowledge (13 yr. olds = 3.0%; adults = 3.6%). There was no significant difference by ethnic group. Puerto Ricans mentioned program knowledge in 4% of their statements, compared to 3% for whites and 2% for blacks.

The least often used process was knowledge about television personalities. This source of information was used less than 1%, and there were no significant effects for any of the three major factors -- age, ethnic group, or sex.

A significant age effect was found for the use of industry knowledge, from an average of about 4% for 13-year-olds, to 6% for 16-year-olds, to 10% for adults ($F = 16.624$; $df = 2,43$; $p = .001$). The means by ethnic group indicate that blacks use industry knowledge the most (10%), Puerto Ricans the least (4%), with whites in between (6%), and this factor was significant ($F = 7.144$; $df = 2,43$; $p = .002$). Industry knowledge was the third most frequently used type of information, averaging about 7%.

The interviews with the kindergarten, second- and sixth-grade children were analyzed in a slightly different manner, but the results can easily be compared to the results we found from the adolescent and adult data.

We abstracted 11 different kinds of reasons children gave in response to questions about why they thought the content of television was real or pretend. These 11 kinds of reasons may be grouped into 5 major types of information. Four of these major groups are directly comparable to 4 of the cognitive processes we abstracted from the adolescent and adult data. The fifth major group of children's reasons is one that children use fairly frequently, but adults and adolescents use rarely.

The first major group relates to the industry knowledge process. We subdivided this category into reasons mentioning (1) general production information, (2) video techniques and other technical

effects used in television, such as slow motion or chromakey, (3) costumes, (4) sets, props, and other stage devices, and (5) knowledge of the business of television. This last sub-category is the only one which is directly comparable to the industry knowledge process for adolescents and adults.

The second major group relates to the information from authorities process. We subdivided this category into (1) information from parents and (2) information from other authorities and peers.

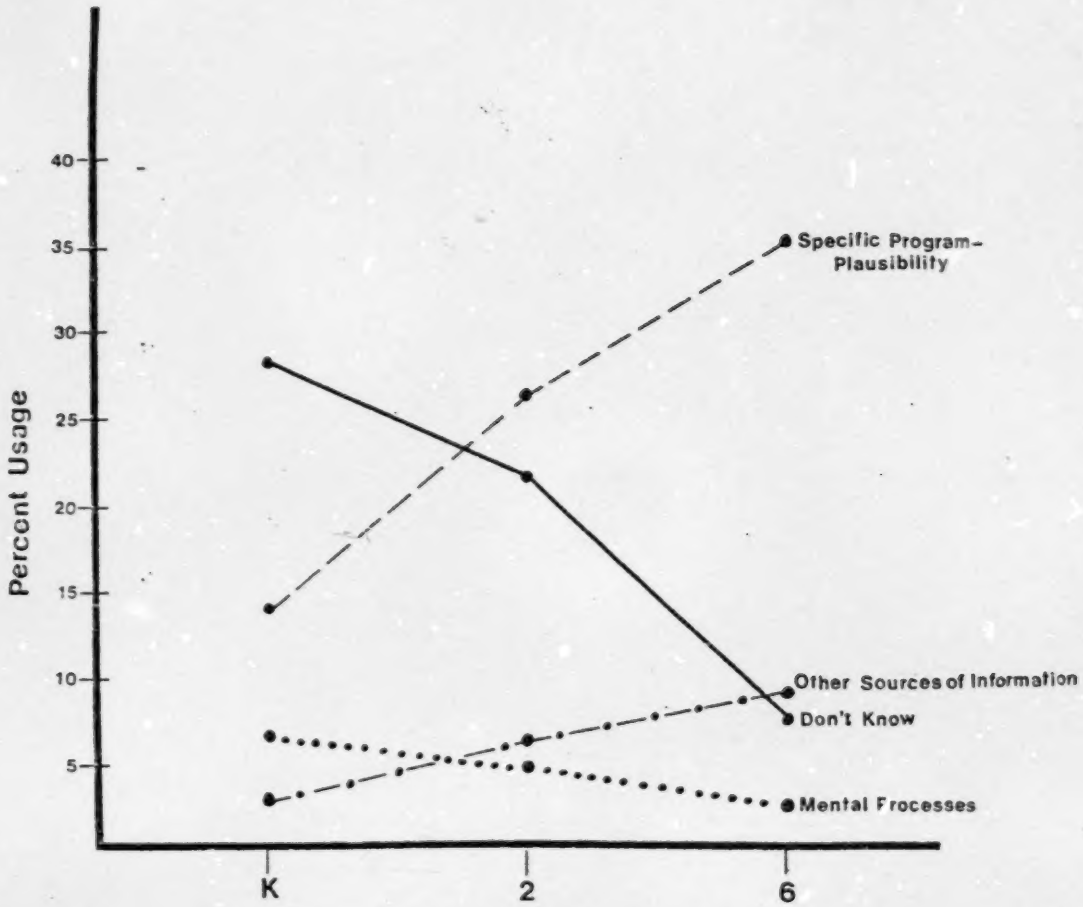
The third major category is related to the use of ideas about conceivability or plausibility. This category was subdivided into (1) conceivability applied to specific television programs and (2) conceivability applied to television programs in general. The fourth major category of children's reasons was defined as personal experience, or information based on actual experience. The fifth major category of children's reasons was defined as unspecified mental processes. Reasons such as "My eyes told me" or "I just think that" are indicative of the nature of these undefined mental process reasons which young children are more apt to give.

Insert Figure 2 about here

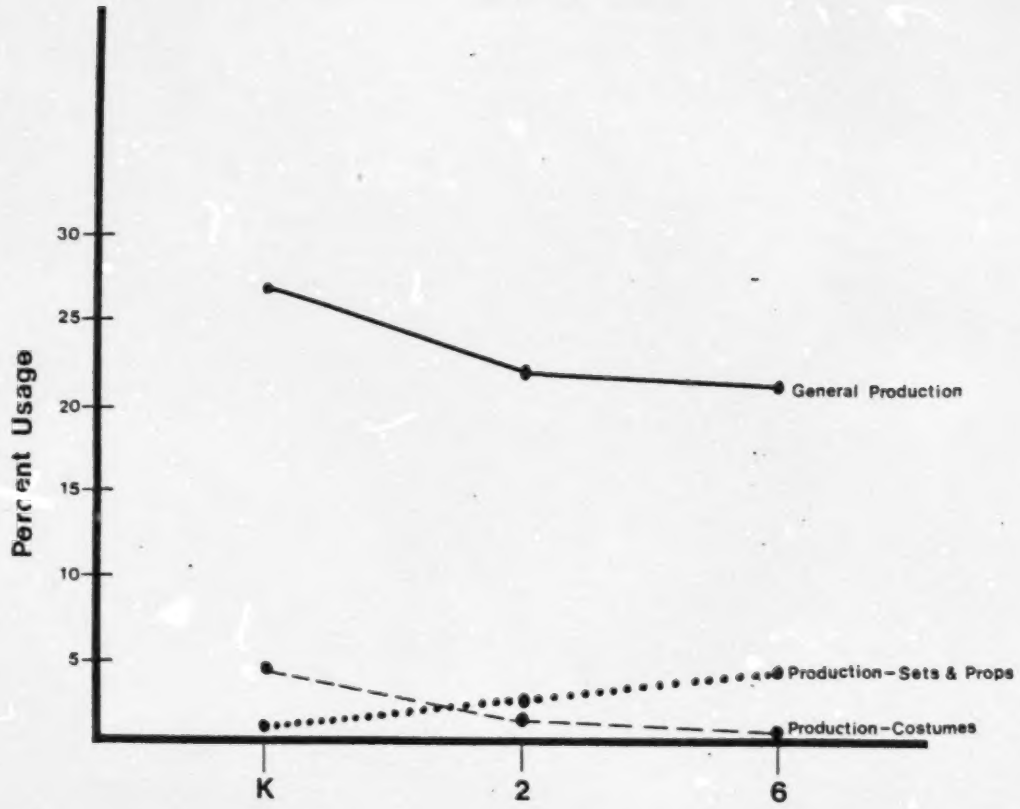
Conceivability was the most frequently used reason for all children, just as it was for the adolescents and adults, and accounted for 34% of all reasons given. Note that the percentages here and following are based on the total numbers of reasons given, and not on the total statements coded as for the adults and adolescents. There was a significant effect of age for this type of information ($F = 10.543$, $df = 2,43$; $p = .001$), from 18% for kindergarteners, to 31% for second graders, to 45% for sixth graders. Within the general category, conceivability applied to specific programs also showed a significant age effect ($F = 6.399$, $df = 2,43$; $p = .004$; kindergarteners = 14%; second graders = 26%; sixth graders = 35%) of increased use with age, while conceivability applied to general programs showed a non-significant increase with age. Neither ethnic group (blacks and whites) nor sex were significant factors for the general category or its two subcategories.

Insert Figure 3 about here

Processes Used



Processes Used



Industry knowledge was the second most frequently used reason for all interviewees, comprising 29% of all reasons given. There was a slight decrease in the use of this type of information with age, but the age factor was not significant. Within the category as a whole, references to general production knowledge were significant by age ($F = 3.343$, $df = 2,41$; $p = .044$), decreasing with increasing age (kindergarteners = 26%; second graders = 22%; sixth graders = 21%). References to costumes were also significant by age ($F = 6.401$, $df = 2,43$; $p = .004$) and also decreased with age (kindergarteners = 4.6%; second graders = 1.1%; sixth graders = 0.3%). An age effect was also found for references to sets and stage props ($F = 7.939$; $df = 2,41$; $p = .001$), but this was an increasing pattern with age (kindergarteners = 0.5%; second graders = 1.5%; sixth graders = 4.3%). The only other significant effect was for sex for reasons mentioning costumes ($F = 49.503$; $df = 1,41$; $p = .001$) with males using this type of information 2% and females less than 1%.

Information from authorities and others was the third most frequently used source of information at 10%. Overall there was a non-significant increase in references to authorities with age (kindergarteners = 6%; second graders = 10%; sixth graders = 12%), and this effect was significant for sources of information other than parents ($F = 5.855$; $df = 2,43$; $p = .006$; kindergarteners = 3%; second graders = 6%; sixth graders = 9%). (See Figure 2.) References to parents as information sources was constant for all age groups.

Personal experience was the fourth most used source of information, comprising 5% of all reasons given. There were no significant effects by age, ethnic group (blacks and whites), and sex.

Undefined mental process references were the least used process overall (4%) although it was the third most frequent type of reason for kindergarteners (7%). The effect by age did turn out to be significant ($F = 3.197$; $df = 2,43$; $p = .05$), and the pattern of use decreased with age from 7% for kindergarteners, to 5% for second graders, to 2% for sixth graders (see Figure 2).

I hope that this short review of the results we have found for the use of cognitive information comparison processes has given you some idea of the nature of our work. Unfortunately, I have had to leave out some of our less important findings, in the interests of time, but I have reviewed most of our findings directly related to cognitive processes and the evaluation of television content.